

Flow
17.8.78

Report No. 1978/11

Overseas Division
Occasional Reports

WC/OR/78/11

REPORT ON A VISIT TO

BOTSWANA

18 - 24 APRIL 1978

by

I G HUGHES

Institute of Geological Sciences
154 Clerkenwell Road
London EC1R 5DU

REPORT ON A VISIT TO BOTSWANA

18 - 24 APRIL 1978

1 Programme and Itinerary

- 1.1 I arrived in Gaborone at 1130 hours on 18 April and was met by Dr C R Jones, Director of the Geological Survey Department, who drove me to Lobatse which we reached at 1300 hours. At 1415 hours I started my discussions with Dr Jones and Dr Walshaw, his deputy, and at 1530 hours I commenced Job Appraisal Reviews with seconded IGS officers. The last JAR ended at 1730 hours and at 1800 hours I delivered on behalf of Dr A W Woodland, Director IGS, who was to have accompanied me to Botswana, an address to the country's Earth Scientists Society.
- 1.2 The following three days were spent on trek in the southern Kalahari, the first morning being spent with Dr R M Key in his field-mapping area north and west of Lobatse. Discussions were held with Mr M J Jones, Team-Leader of the Groundwater Evaluation Project (GS10), and members of his staff on 20 April and a pump-test was witnessed. That evening we drove along prospectors' cut-lines to the new diamond mine at Jwaneng: I was shown over the property the following morning and this included an inspection of one of the prospecting shafts in the kimberlite body. We returned to Lobatse on the afternoon of 21 April and I concluded Job Appraisal Reviews on Saturday 22 April. Monday 24 April was spent at Gaborone where I paid a call on HE the British High Commissioner, visited the Ministry of Mineral Resources and Water Affairs (twice) and the Director of Personnel. That evening I flew to Johannesburg en route to Swaziland.

2 Geological Survey Department

2.1 Staffing

2.1.1 There are at present 21 UK nationals on the staff of the Geological Survey of whom eight are seconded IGS Officers (six OSAS and two TC). A further two are SCAAP TC appointments on the GS10 project and the eleven remaining officers are on OSAS contracts.

2.1.2 Two of the Department's managerial posts, those of Assistant Director (Economic Geology) and Principal Hydrogeologist, were vacant, the former owing to the disappearance over the Bophutsatswana border of Dr B Marengwa. I discussed these vacancies with the Director and with the Deputy Permanent Secretary, Ministry of Mineral Resources and Water Affairs and the Director of Personnel. In the case of the Assistant Director post it was finally decided that Dr G C Clark, Principal Geologist (Field Mapping), should transfer to head the Economic Geology section and I recommended to the Director that Dr R M Key, who has served in the Field Mapping section for six years, should be promoted to fill the post vacated by Dr Clark. This, if implemented, will cause a vacancy for a Geologist and I informed the Director that, with ODM

16/8/78

approval, IGS would second an officer to fill the post if a Botswana Government invent is forthcoming.

2.1.3 I was asked whether the Principal Hydrogeologist vacancy could be filled from the UK and there had, in fact, been some discussion before my visit regarding the possibility of Mr M J Jones, GS10 Team-leader, combining both posts. After consultations with the Hydrogeological Adviser to ODM I had advised against combining the Principal Hydrogeologist and Team-leader posts, and I now had to advise that it would prove extremely difficult to recruit in the UK a suitably qualified and experienced man to fill the Principal post, the IGS having no suitable candidate to offer. Since my visit I have been informed that the West German Government has offered to provide a senior man and this offer has been accepted.

2.1.4 With the exception of the vacancy for a Geologist which will arise if Dr Key is promoted to Principal Geologist (paragraph 2.1.2 above), the only other variation in the staffing situation will be the departure of Mr J M Coates, an OSAS contract officer. Mr Coates has been awarded an ODM ISTS Grant to read the MSc Mineral Exploration course at Imperial College in the 1978-79 academic year, and the resultant vacancy is to be filled by a returning Tswana geologist who is graduating this summer at a Canadian University. It is, however, likely that there will be a vacant post in the Department in the autumn of 1979 which can be offered to Mr Coates.

2.2 Conditions of Service

2.2.1 In my discussions with seconded officers either as a group or in JARs the recurring theme was the disparity between OSAS and TC terms of service. This, of course, is a long-standing matter and over the years various reasons have been advanced as to why it has so far not proved possible for unified conditions to be introduced for both classes of secondment, eg the cost and the unacceptable load of work that would devolve on the aid sections of our posts in the countries concerned.

2.2.2 The most serious disparity between the two sets of conditions is concerned with accommodation; the TC officer's housing is brought up to a standard laid down for the particular country, for example, by the addition of such items as air-conditioners for each bedroom, curtains, floor coverings and garden furniture and improvements to the decoration, etc. A sum of £1,000 per TC officer is apparently available to this purpose in Botswana but the officer seconded to an OSAS post has none of this and he has to bear the cost of any improvements, whether they be essential or not, himself.

2.2.3 There are various other disparities which in the main militate against the OSAS seconded officer, eg the TC officer is enabled to register on the UK Voters' Roll and to vote by post or by proxy whereas the OSAS officer is not.

2.2.4 A further disparity which has recently assumed major proportions in Botswana is the subsistence allowance payable for nights spent in camp which is at the rate of 10.92 Pula (£7.27) for the TC officer. The OSAS seconded officer (in common with all Botswana Government employees) now receives 2 Pula (£1.25) per night, a figure introduced as part of the recent salaries review which I gather awarded significantly higher salaries but with a quid pro quo of lower allowances. None of the benefits of the higher salaries is of course available to the officer

seconded to an OSAS type post as he continues to draw his home salary which has suffered PAYE tax treatment. Presumably, however, the increased salary is clawed back to the benefit of the UK while the Botswana Government benefits in that it pays lower allowances. The situation therefore frequently exists where one IGS officer is paid 2 Pula a night while another IGS officer sharing the same camp draws 10.92 Pula.

2.2.5 Secondment to an OSAS type post has never been as attractive a proposition to the IGS man as secondment to a TC post and a continuance of the present arrangements will make it increasingly difficult to identify volunteers to fill the former type of post. This could create a vacuum which other aid donors are all too ready to fill. Their officers, however, invariably enjoy far superior conditions of service than the UK seconded man, eg the West Germans in the Botswana Geological Survey. Rarely, however, do such men integrate fully into the Department and this in turn throws an even heavier load on the shoulders of the serving UK officers who then not only have to perform the duties of his own post but also at least a part of those of the other "expert".

2.2.6 This position is undoubtedly unsatisfactory and it could lead to a situation where governments such as Botswana become disenamoured with the system of seconding officers to OSAS posts and begin to look elsewhere for support. There is therefore an urgent need for action to eradicate the gulf between OSAS and TC conditions of service in as far as they relate to the seconded officer. The problem in Botswana is not a big one: out of 502 OSAS personnel only 17 are seconded officers which would not make a great deal of difference, either cost or work wise, if added to the 64 TC officers in the country.

2.3 Training

2.3.1 I was given to understand that a 5 year Geology undergraduate course is to be started by the University of Botswana and Swaziland in the 1979-80 academic year so that the University's first Geology graduate will not materialise until 1984 at the earliest. The Director of the Geological Survey therefore raised the question of obtaining Geology undergraduate training in the UK for Tswana nationals, three of whom had already been selected. A scheme whereby the students spent an academic year at an educational institution of the polytechnic type in the UK before going up to university was accepted as being the most suitable and I agreed to support this should candidates be nominated through the usual British Council channels. Since my visit I have, however, been informed that the Botswana authorities have decided to accept a training package offered by the Canadian Government at the Haileybury School of Mines and Queens University, Ontario.

2.4 Mineral Prospecting Activity

2.4.1 Some 48 prospecting licences are valid in Botswana at the present time but only one of these has any UK involvement and that in coal exploration.

2.4.2 The recent publication of the aeromagnetic map of Botswana has aroused widespread interest though not apparently amongst UK based mining houses. Offers of assistance in ground follow-up to the aeromagnetic survey had been received by the Botswana Government from Japan, Canada and West Germany and these offers were under consideration at the time of my visit. The Director of Geological Survey enquired whether the UK also

would be interested in some form of participation in the follow-up work: I replied that the sentiment in ODM was such that a proposal to this effect would be unlikely to receive much support in view of Botswana's rapidly strengthening economic position.

2.4.3 There is noteworthy interest in Botswana's radioactive mineral potential at the present time with a West German and a Canadian company leading the activity. British Nuclear Fuels are also considering acquiring a prospecting right in the country and since my return to the UK I have briefed a BNF geologist on the situation in Botswana.

2.4.4 Shell International are continuing their coal exploration activities in the Serowe district and I gather that this company may also be considering an exploration programme in the area of Karroo rocks in the south-west of the country. On broad geological considerations there is a possibility that better quality coal may exist in this western sector and, with the impending independence of Namibia, a rail-head would be available some 60 miles west of the Botswana frontier for shipment through Walvis Bay. The construction of 60 miles or thereabouts of railway would not be too difficult in that terrain so that given a reasonable quality of coal, a mine in western Botswana could be an economic possibility.

2.4.5 British Petroleum are reported to be considering reactivating their Mamabula coal field evaluation programme.

2.4.6 The New Jersey Zinc Corporation has acquired prospecting rights over the Tati Concession in the north-east of Botswana. Their investigations are being centred on the Phoenix and Selkirk copper-nickel prospects.

2.4.7 In the Ghanzi district US Steel, having outlined two copper ore-bodies of some 20 and 7 million tons respectively, have been granted a 12 months' moratorium on further expenditure on evaluation work. This is presumably a holding operation awaiting possible improvements in nickel and copper prices.

3 Discussions at the British High Commission

- 3.1 I was granted an interview with HE the British High Commissioner, Mr W Turner, on 24 April; Dr Jones, Director of Geological Survey, and Mr Malley of the High Commission were also present.
- 3.2 I gave Mr Turner an account of my visit so far, including a brief mention of my stop at Jwaneng diamond mine. His Excellency asked about UK interest in participating in the development of Botswana's mineral wealth and expressed concern at the apparent lack of such interest, vide paragraph 2.4.1 above. I said that British mining houses appeared to be confining their activities mainly to North America, Europe and Australia and that they did not seem to be willing to invest in the developing nations of Africa. I also informed Mr Turner of the procedures, agreed with ODM, for the dissemination of information to organisations in the UK interested in mineral development. The High Commissioner said that he was particularly anxious that all measures should be taken to stimulate British interest in Botswana's mining industry.
- 3.3 In the context of the Botswana Geological Survey Department's staffing position I mentioned to the High Commissioner the problem of having IGS

seconded officers serving in TC and OSAS roles, vide paragraphs 2.2.1 to 2.2.6 above. Mr Turner expressed dissatisfaction with the situation; he said that in his view bringing all 17 OSAS seconded officers in to line with TC officers would not result in an intolerable burden on his staff and he asked that renewed efforts be made to extinguish the disparity.

- 3.4 The continuing difficulty encountered by the GS10 TC officers in being paid their subsistence allowances was raised with the High Commissioner who, while appreciating the reason why the problem had arisen in the first place, thought that the problem should by now have been solved. In view of the fact that the problem appears to be one of accounting Mr Turner asked Mr Malley to have payments of claims put in hand.
- 3.5 I raised the question of the filling from UK sources of further posts in the Geological Survey and enquired whether the man power ceiling would allow this. His Excellency said that there was still some leeway and that I should be receptive should the Director of Personnel intimate that the Botswana Government would wish to place further indents for staff for the Geological Survey. Dr Jones raised the possibility, mentioned in paragraph 2.4.3 above, that in view of Botswana's rapidly increasing prosperity, there might be a downturn in UK technical aid to the country. Mr Turner said that so far there had been no proposal to reduce aid and that new aid talks were scheduled to take place with the Botswana authorities the following month.

4 Discussions at the Ministry of Mineral Resources and Water Affairs

- 4.1 The Permanent Secretary, Mr Ngununu, was unfortunately away ill when I called at the Ministry; instead I was received by the Deputy Permanent Secretary, who expressed the Ministry's appreciation of the support afforded by IGS to the Geological Survey Department. I thanked the Deputy Permanent Secretary for his remarks and said that the only mild complaint that I had heard during my discussions with the staff, apart from the problems of subsistence allowances, concerned the shortage of equipment in the Department. Most of the Department's field and scientific equipment is now some 10 years old having been supplied as Project GS01, Mineral Exploration Equipment through the UK aid programme. It is therefore very much out-of-date even if still serviceable and I suggested to the Deputy Permanent Secretary that there was merit in reinvesting a modicum of the revenue earned by Botswana from the exploitation of its mineral wealth in re-equipping the Geological Survey. He took the point and promised to have the matter considered.
- 4.2 The staffing situation in the Geological Survey was reviewed with the results indicated in paragraphs 2.1.2 to 2.1.4 above.
- 4.3 Training requirements were also discussed as mentioned in paragraph 2.3.1 and one further aspect brought up at this juncture was the question of improving the capabilities of the Department's drilling operations. Bound up with this was the need to upgrade the drilling facilities themselves. I informed the Deputy Permanent Secretary that it was hoped to appoint an IGS/ODM Drilling Adviser in the not too distant future and helping the Botswana Geological Survey could well be one of his first tasks.

5 Meeting at the Directorate of Personnel

- 5.1 The Geological Survey's staffing situation was also reviewed with Mr Dabuta, Deputy Director of Personnel (the Director was on leave), and Mr Matlapeng, an Assistant Director. The Deputy Director agreed with the steps outlined in paragraphs 2.1.2 to 2.1.4 above and he also agreed that requests for further tours of duty be made to ODM in respect of Dr Walshaw, Deputy Director, and Dr Clark.

6 Jwaneng Diamond Mine

- 6.1 The morning of 21 April was spent at the Anglo-American/De Beers property at Jwaneng where a new diamond mine is being developed. The total cost of bringing this mine into production is said to be approximately US \$250 million of which the Botswana Government, consequent on its shareholding arrangement with De Beers Botswana Mining, has to find some US \$45 million. An Eurodollar loan to finance the Government's share of the development costs has been arranged; the term is to be seven years with repayments starting at the end of year four when the mine is expected to come into production. When that happens it is forecast that Botswana will have an annual diamond production of between 10 and 11 million carats.

7 Underground Water Evaluation Project (GS10)

- 7.1 This project is now approximately at its half-way stage and a programme to cover the second half, 1978-80, has been drawn and discussed by the Project Leader with the Botswana authorities. In this programme the Team-leader has made a case for further drilling which he estimates would cost between Pula 200,000 and Pula 225,000. It had been hoped that the Geological Survey Department drilling branch would be able to undertake part or all of this work but there is now no possibility that they will have the capacity to do so. A contract will therefore have to be arranged provided that further funding can be provided.
- 7.2 One of the most satisfactory facets of the GS10 work so far is the very substantial contribution towards solving the Jwaneng diamond property water supply problem.

8 Acknowledgements

I am grateful to HE Mr Turner for hospitality received; to Dr Jones and his staff for organising my visit; to Dr Jones, Dr Walshaw and Mr M J Jones for their hospitality; and to Miss V C Waterman, Mr D Scott and Mr M J Edwards, ODM, for their assistance in arranging my programme.